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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/323,206	06/01/1999	WILLIAM R. BANDY	1689.0010001	8893

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EXAMINER

MYHRE, JAMES W

ART UNIT	PAPER NUMBER
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3622

DATE MAILED: 04/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/323,206

Applicant(s)

Bandy et al

Examiner

James W. Myhre

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on January 17, 2003 and March 27, 2003
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 92-99, 101-104, and 106-154 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 92-99, 101-103, and 106-117 is/are allowed.
- 6) ☒ Claim(s) 104 and 118-154 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892). 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 20 6) ☐ Other:

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 17, 2003 has been entered.

Response to Amendment

2. The amendments filed on January 17, 2003 and March 27, 2003 under 37 CFR 1.116 are sufficient to overcome the Reis et al (EP 0,467,036) reference.

Allowable Subject Matter

3. Claims 92-99, 101-103, and 106-117 contain allowable subject matter.

Statement of the Reasons for the Indication of Allowable Subject Matter

4. The following is a statement of reasons for the indication of allowable subject matter:

While prior art was found which disclosed systems and methods using electronic tags to track and locate items such as luggage (Kaplan et al, US 3, 689,885)(Wade, William, Electronic

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News) and prior art was also found which disclosed procedures for conflict resolution between multiple tags using random time differentiation to respond to a polling signal (Reis et al, EP 0,467,036)(Walter et al, 5,856,788), prior art was not located in which multiple tags were polled within a specified location to identify the items and which also handled contention between the identity signals from one or more tags within the location by using a secondary identification number stored in each tag. Therefore, the Examiner considers the combination of polling a plurality of electronic tags and resolving contention between the tags by the tags responding with a secondary identification code as the novelty of the invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 104 and 118-154 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walter et al (5,856,788).

Claims 104 and 135: Walter discloses an inventory system comprising a plurality of electronic tags and a tag reader (col 3, lines 24-38) which performs multiple reads of the tags to avoid time slot contention (col 3, lines 10-23). Walter further discloses that the tags are identified

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by a plurality of bits (col 5 and 6, Table 1) and that a different bit is read during each of the multiple read cycles. While it is not explicitly disclosed that a plurality of bits are read each time, it would have been obvious to one having ordinary skill in the art that in order to use different parts of the identification number for multiple reads, the identification number could be divided into subsets containing any number of bits from only one bit as Walter discloses to any number less than the total number. One would have been motivated to use a plurality of bits in order to decrease the time it takes to identify a plurality of items when the identification number consists of a large number of bits. For example, if the identification numbers of 100 items each contains 88 bits, it would take approximately 8,800 reads to identify all 100 items reading one bit at a time. If 4 bits (one byte) at a time were read, it would only take approximately 1,100 reads to identify all 100 items, etc.

Claims 118 and 136: Walter discloses an inventory system as in Claims 104 and 135 above, and further discloses the tag responding within a defined time slot (col 2, lines 38-40 and col 9, lines 42-55).

Claim 120: Walter discloses an inventory system as in Claim 104 above, and further discloses the tag reader transmitting a first value and a second value of a tag to be located, wherein the values are a first plurality of bits and a second plurality of bits (col 5, lines 6-9 and col 6, lines 10-57).

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Claim 121: Walter discloses an inventory system as in Claim 120 above, and further discloses the tag responding by transmitting its first and second plurality of bits when they correspond to the values transmitted by the tag reader (col 6, lines 10-57).

Claim 122: Walter discloses an inventory system as in Claim 121 above, and further discloses the tag including a third plurality of bits, the tag reader transmitting the third plurality of bits to the tag, and the tag responding with the third plurality of bits when they correspond to the value transmitted by the tag reader (col 6, lines 10-57).

Claims 119, 123, and 137: Walter discloses an inventory system as in Claims 104, 121, and 135 above, and further discloses that RFID tags including a sensor (the tags “sense” the Awake and Sleep signals)(col 1, col 60-62 and col 2, lines 40-42).

Claims 124 and 138: Walter discloses an inventory system as in Claims 104 and 135 above, and further discloses that the tag(s) are “connected to any object desired” (col 4, lines 45-53) and uses as an example a biological sample carried in a “flask, vile, case, pouch, or other container”. While it is not explicitly disclosed that the object to which the tag is attached is a product to be sold (i.e. merchandise), it would have been obvious to one having ordinary skill in the art at the time the invention was made to attach inventory tags to such items. One would have been motivated to attach tags to merchandise in order to facilitate the inventory of such objects and in view of Walter’s disclosure that the tags could be attached to any desired object.

Claims 125, 127, and 139: Walter discloses an inventory system as in Claims 104, 124, and 138 above, but does not disclose if the type of material being used in the manufacture of the

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tags is flexible or inflexible. However, since no reason is given in the claims of why the substrate material needs to be flexible and this flexibility feature is not used in the claims, no patentable weight is given to this feature. The Examiner notes that any RFID tag, flexible or inflexible, could be used in the systems disclosed by the reference and the present invention without detracting from the method of inventorying the tags.

Claim 126: Walter discloses an inventory system as in Claims 104 above, and further discloses the tag reader transmitting a wake up (Awake) signal (col 1, col 60-62 and col 2, lines 40-42).

Claim 128: Walter discloses an inventory system as in Claim 104 above, and further discloses that the tags can receive and transmit signals (i.e. contain transceivers)(col 2, lines 30-35 and col 3, lines 43-50).

Claims 129 and 140: Walter discloses an inventory system as in Claims 104 and 135 above, and further discloses the tags evaluating the signal received from the tag reader and replying to the signal when appropriate (the correct value is in the corresponding bit)(col 5, lines 10-16).

Claim 130: Walter discloses an inventory system as in Claim 129 above, and further discloses that the tag has a sensor (for receiving and determining status, i.e. Awake, Sleep, Isolated, etc.)(col 1, col 60-62 and col 2, lines 40-42) and means for transmitting the contents of said sensor (transceiver)(col 2, lines 30-35 and col 3, lines 43-50).

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Claims 131, 141, and 142: Walter discloses an inventory system as in Claims 129, 135, and 140 above, and further discloses the tag reader emitting a series of clock signals defining time slots (col 9, lines 42-65).

Claim 132: Walter discloses an inventory system as in Claim 131 above, and further discloses that each tag begins a count based on the clock signal (synchronization)(col 9, line 42 - col 10, line 10).

Claim 133: Walter discloses an inventory system as in Claim 131 above, and further discloses polling all tags whose reply conflicted with another tag (col 10, lines 11-32).

Claim 134: Walter discloses an inventory system as in Claim 131 above, and further discloses that the tag reader can initiate an immediate read, a specific tag read, or a timed broadcast read of the tags (col 9, line 19 - col 10, line 32).

Claim 143: Walter discloses an inventory method which includes the steps of Claims 104 and 128 above, in which a tag reader performs multiple reads of the tags to avoid time slot contention (col 3, lines 10-23). Walter further discloses that the tags are identified by a plurality of bits (col 5 and 6, Table 1) and that a different bit is read during each of the multiple read cycles. While it is not explicitly disclosed that a plurality of bits are read each time, it would have been obvious to one having ordinary skill in the art that in order to use different parts of the identification number for multiple reads, the identification number could be divided into subsets containing any number of bits from only one bit as Walter discloses to any number less than the total number. One would have been motivated to use a plurality of bits in order to decrease the

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time it takes to identify a plurality of items when the identification number consists of a large number of bits. For example, if the identification numbers of 100 items each contains 88 bits, it would take approximately 8,800 reads to identify all 100 items reading one bit at a time. If 4 bits (one byte) at a time were read, it would only take approximately 1,100 reads to identify all 100 items, etc. Walter further discloses repolling (transmitting a second signal to) all tags whose reply conflicted with another tag (col 10, lines 11-32).

Claims 144 and 145: Walter discloses an inventory method as in Claim 143 above, and further discloses that the tag has a sensor (for receiving and determining status, i.e. Awake, Sleep, Isolated, etc.)(col 1, col 60-62 and col 2, lines 40-42) and means for transmitting the contents of said sensor (transceiver) for receipt by the tag reader (col 2, lines 30-35 and col 3, lines 43-50).

Claim 146: Walter discloses an inventory method as in Claim 143 above, and further discloses the tag reader transmitting a first value and a second value of a tag to be located, wherein the values are a first plurality of bits and a second plurality of bits (col 5, lines 6-9 and col 6, lines 10-57).

Claim 147: Walter discloses an inventory method as in Claim 146 above, and further discloses the tag responding by transmitting its first and second plurality of bits when they correspond to the values transmitted by the tag reader (col 6, lines 10-57).

Claim 148: Walter discloses an inventory method as in Claim 147 above, and further discloses the tag including a third plurality of bits, the tag reader transmitting the third plurality of

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bits to the tag, and the tag responding with the third plurality of bits when they correspond to the value transmitted by the tag reader (col 6, lines 10-57).

Claim 149: Walter discloses an inventory method as in Claim 148 above, and further discloses that the tag(s) are “connected to any object desired” (col 4, lines 45-53) and uses as an example a biological sample carried in a “flask, vile, case, pouch, or other container”. While it is not explicitly disclosed that the object to which the tag is attached is a product to be sold (i.e. merchandise), it would have been obvious to one having ordinary skill in the art at the time the invention was made to attach inventory tags to such items. One would have been motivated to attach tags to merchandise in order to facilitate the inventory of such objects and in view of Walter’s disclosure that the tags could be attached to any desired object.

Claim 150: Walter discloses an inventory method as in Claims 149 above, but does not disclose if the type of material being used in the manufacture of the tags is flexible or inflexible. However, since no reason is given in the claims of why the substrate material needs to be flexible and this flexibility feature is not used in the claims, no patentable weight is given to this feature. The Examiner notes that any RFID tag, flexible or inflexible, could be used in the systems disclosed by the reference and the present invention without detracting from the method of inventorying the tags.

Claim 151: Walter discloses an inventory method as in Claims 143 above, and further discloses the tag reader transmitting a wake up (Awake) signal (col 1, col 60-62 and col 2, lines 40-42).

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Claim 152: Walter discloses an inventory method as in Claim 143 above, and further discloses the tag reader emitting a series of clock signals defining time slots (col 9, lines 42-65).

Claim 153: Walter discloses an inventory method as in Claim 152 above, and further discloses that each tag begins a count based on the clock signal (synchronization)(col 9, line 42 - col 10, line 10).

Claim 154: Walter discloses an inventory method as in Claim 143 above, and further discloses that the tag reader can initiate an immediate read, a specific tag read, or a timed broadcast read of the tags (col 9, line 19 - col 10, line 32).

Response to Arguments

7. Applicant's arguments with respect to claim 104 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exr. James W. Myhre whose telephone number is (703) 308-7843. The examiner can normally be reached on weekdays from 6:30 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber, can be reached on (703) 305-8469. The fax phone number for Formal

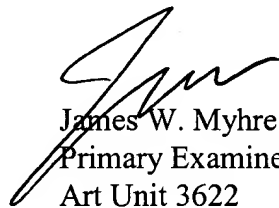
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or Official faxes to Technology Center 3600 is (703) 872-9326. Draft or Informal faxes may be submitted to (703) 872-9327 or directly to the examiner at (703) 746-5544.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703) 308-1113.


JWM

April 16, 2003


James W. Myhre
Primary Examiner
Art Unit 3622